**Physical Science- Unit 1 Review Answers *are in italics*:**

*“Okay, I said I wasn’t going to publish the questions.*

*Being the nice guy that I am and the effort you guys put into this review,*

*I decided that you deserved it!*

*Who’s your favorite teacher???????”*

1. Fill in the blanks:

“Science begins with \_\_\_\_\_\_\_\_ and often ends with \_\_\_\_\_\_\_\_.”

* *Curiosity, Discovery*

1. Why did we make the 6 fingers box?

* *To reinforce the need to use a standard unit of measure, Metric System.*

1. What are the steps of the scientific method?

*(Remember your mnemonic?)*

* *Ask a question, Hypothesis, Test, Analyze, Conclusion*

1. What should a hypothesis always be?

* *A statement, never a question, never begin with “I think”*

1. What is wrong with the following hypotheses?
   1. I think that there are no such things as invisible fish*. – Never “I think”*
   2. What do you feed invisible fish? *– Never a question.*
2. What should be stated in your conclusion?

* *Maybe The question, always restate the hypothesis*

1. What happens when a hypothesis is proven wrong?

* *Reform your hypothesis and try again.*

1. What happens when a hypothesis is proven correct numerous times?

* *Try your experiment again, completing multiple trials.*

1. Fill in the blanks: Laws \_*Describe*\_ Theories \_\_\_*Explain*\_\_.

Theories \_\_\_*never*\_\_\_ become Laws.

1. What is the difference between precision and accuracy?

* *Accuracy- when many people get the same answer, but not the desired answer*

*(arrows are in a group, but not in the bulls eye)*

* *Precision – when you get the desired result (all arrows in the bulls eye)*

1. What is a Manipulated Variable?

* *The variable that you (man or woman) change in the experiment*

1. What is a Responding Variable?

* *The thing that changes after you change the manipulated variable.*

1. What is a control experiment?

* *An experiment where only one variable is changed, and is used to compare your results to.*

1. Answer the questions from the given graph.
   1. *0.25 b. 0.35 c. 0.3 -0.26 = 0.04*

* *Be able to extract information from a plot-point graph.*

1. How long is this slip of paper? *– 21.65 cm*
   1. What is the accepted error on this measurement device? *+ 0.5mm or + 0.05cm*
2. Why is the metric system so easy to use?

*It’s based on the number 10, so it’s easy to multiply, divide, and convert by moving a decimal place.*

1. Define the following metric prefixes:
   1. Mega *1,000,000* e. Kilo *1000*
   2. Deka *10* f. Deci *1/10*
   3. Centi *1/100* g. Milli *1/1000*
   4. Micro *1/1,000,000*
2. What is the base unit for:
   1. Length - *Meter*
   2. Mass – *Gram or kilogram*
   3. Volume - *Liter*
3. What is the density of a solid block measuring

3 cm x 4 cm x 5 cm, and a mass of 20 gm?

*(Be able to solve problems with the density equation)*

*d = ?*

*m = 20 gm d = m/V = 20/6 = 0.33gm/cm3*

*V = 3 x 4 x 5 = 60 cm3*

1. What is the density of water, and when will and object sink in water?

* Density of water is 1 gm/ml
* Any object with a density of greater than 1 gm/ml will sink.